REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks.

Claims 1-29 are pending in the application, with claims 1, 16 and 28 being independent. Claims 31-34 are currently canceled without prejudice or disclaimer of the subject matter recited therein. Claims 1-29 are currently amended with support for the claim amendments found in the original disclosure. No new matter has been added. Favorable consideration is respectfully requested.

Claim Objections

Claims 32-34 stand objected to under 37 CFR 1.75(c) as purportedly being of improper dependent form for failing to further limit the subject matter of a previous claim. For the sole purpose of expediting prosecution of the present application to allowance and without conceding the propriety of the Office's objections, claims 32-34 are currently canceled herein without prejudice or disclaimer of the subject matter recited therein. Accordingly, Applicant respectfully requests that the objection be reconsidered and withdrawn.

§101 Rejections

Claims 1-29 and 31-34 stand rejected under 35 U.S.C.§ 101 as purportedly being directed to non-statutory subject matter. For the sole purpose of expediting prosecution of the present application to allowance and without conceding the propriety of the Office's objections, Applicant has amended claims 1-29 to address the rejections. The rejections are

moot with respect to claims 31-34 since these claims are currently canceled. Accordingly, Applicant respectfully requests that the rejection be reconsidered and withdrawn.

Cited References

The following references have been applied to reject one or more claims of the Application:

Williamson: Williamson et al., "A Primal-Dual Approximation Algorithm for Generalized Steiner Network Problems" 25th ACM STOC (1993), pp. 708-717

Karr: Karr et al., "Derivation of the Ellipsoid Algorithm", Duke University Technical Report CS-1991-17 (1990)

Hougardy: Hougardy et al., "A 1.598 Approximation Algorithm for the Steiner Problem in Graphics", Proceedings of the Teenth Annual ACM-SIAM Symposium on Discrete Algorithms (1999), pp. 448-453

§103(a) Rejections

- Claims 1, 2, 5-14, 31, 32 and 34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Williamson
- Claims 3,4, 16-19, 21-29 and 33 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Williamson in view of Karr
- Claim 15 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Williamson in view of Hougardy

- Claim 20 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Williamson in view of Karr and Hougardy

Claims 1, 2, 5-14, 31, 32 and 34

Claims 1, 2, 5-14, 31, 32 and 34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Williamson. This rejection is moot with respect to claims 31, 32 and 34 since these claims are currently canceled. Applicant respectfully traverses the rejection.

Claim 1

As amended, independent **claim 1** recites:

> A computer-implemented system for approximating a solution to a linear program to analyze network data routes for data dissemination, comprising the following computer components stored in a computer readable media and executable by one or more processors:
>
> a component that receives a subset of data corresponding to the linear program;
>
> **a user input that receives a selection of at least one of the subset of data**;
>
> an analysis component that adapts linear programming optimization algorithms, based on separation oracle(s), to work with an approximate separation oracle **and the at least one of the subset of data** to solve a primal and dual linear program within a same approximation factor as the approximate separation oracle. (Emphasis added).

The instant application is directed towards providing an optimal distribution of non-streaming data to nodes in a network. Applicant respectfully submits that although Williamson describes designing approximation algorithms, there is no teaching or suggestion therein of, at least, "a user input that receives a selection of at least one of the subset of data," as recited in claim 1.

Williamson is limited to describing the methodology of polynomial-time approximation algorithms for find a minimum-cost subgraph having at least a specified number of edges in each cut (Williamson, Abstract). As such, Williamson is silent with respect to a user input receiving a selection of at least one of the subset of data used to solve a primal and dual linear program as recited in claim 1. Indeed, the Office acknowledges that "Williamson does not explicitly disclose a system comprising components that perform the claimed methodology….," (Office Action, pg. 7). The Office continues that "it is well-known in the art at the time of the invention was made to automate processes," *id*. Applicant respectfully disagrees with the foregoing since the features recited in claim 1 are far more than the mere automation of the purported process as described in Williamson. In other words, Applicant respectfully submits that the user input feature of claim 1 is not a "well-known" part of automating the aforementioned process.

Accordingly, based on the current amendments to independent claim 1, Applicant respectfully submits that claim 1 is patentable over Williamson.

The remaining rejected claims depend from the independent claim 1, and therefore are also patentable over the Williamson by virtue of, at least, their respective dependencies. Applicant also respectfully requests individual consideration of each dependent claim.

Claims 3-4, 16-19, 21-29 and 33

Claims 3-4, 16-19, 21-29 and **33** stand rejected under 35 U.S.C. §103(a) as being unpatentable over Williamson in view of Karr. This rejection is moot with respect to claim 33 since this claim is currently canceled. Applicant respectfully traverses the rejection.

Claims 3 and 4 depend from independent claim 1 and therefore include the feature, "a user input that receives a selection of at least one of the subset of data." As provided with respect to independent claim 1 hereinabove, Williamson fails to teach or suggest the aforementioned feature.

Applicant further submits that Karr provides no assistance in light of Williamson with respect to claims 3 and 4 since Karr fails to rectify the deficiencies of Williamson. Karr merely presents an informal derivational framework for linear programming algorithms and derive the ellipsoid method using the ideas of this framework (Karr, Abstract). Moreover, like Williamson, Karr is silent with respect to, at least, user input receiving a selection of at least one of the subset of data used to solve a primal and dual linear program, as recited in claim 1 and included in claims 3 and 4. As such, Applicant respectfully submits that Karr does not compensate for the deficiencies of Williamson, relative to claims 3 and 4.

Based on the foregoing, Applicant respectfully traverses the rejection with respect to claims 3-4 and respectfully requests that the rejection be reconsidered and withdrawn.

Claims 16 and 28

Independent **claims 16** and **28** have been revised, in part, as follows (with emphasis added):

> 16. …**receiving a selection of at least one of the desired parameter data**; determining the optimum distribution utilizing an approximate separation oracle **and the at least one of the desired parameter data** in an ellipsoid method to solve primal and dual linear programs that represent a fractional Steiner tree packing problem.

28. ...means for **receiving a selection of at least one parameter** corresponding to the linear program; means for obtaining an approximate separation oracle for the algorithmic solution; and means for utilizing the approximate separation oracle **and the at least one parameter** in an ellipsoid method to resolve primal and dual linear programs representative of a fractional Steiner packing tree problem to provide an optimal distribution for a networked system.

As provided previously with respect to claim 1, the instant application is directed towards providing an optimal distribution of non-streaming data to nodes in a network. Applicant respectfully submits that although Williamson describes designing approximation algorithms, there is no teaching or suggestion therein of, at least, "receiving a selection of at least one of the desired parameter data," as recited in claim 16 or, "means for receiving a selection of at least one parameter," as recited in claim 28.

Williamson is limited to describing the methodology of polynomial-time approximation algorithms for find a minimum-cost subgraph having at least a specified number of edges in each cut (Williamson, Abstract). As such, Williamson is silent with respect to receiving a selection of at least one of the desired parameter data and using this data with an approximate separation oracle to solve primal and dual linear programs as recited in claims 16 and 28. Indeed, the Office acknowledges that "Williamson does not explicitly disclose a system comprising components that perform the claimed methodology....," (Office Action, pg. 7). The Office continues that "it is well-known in the art at the time of the invention was made to automate processes," *id*. Applicant respectfully disagrees with the foregoing since the features recited in claims 16 and 28 are far more than the mere automation of the purported process as described in Williamson. In other words, Applicant respectfully submits that the selection of

parameter data/parameter feature of claims 16 and 18, respectively are not a "well-known" part of automating the aforementioned process.

Applicant further submits that Karr provides no assistance in light of Williamson with respect to claims 16 and 28 since Karr fails to rectify the deficiencies of Williamson. Karr merely presents an informal derivational framework for linear programming algorithms and derive the ellipsoid method using the ideas of this framework (Karr, Abstract). Moreover, like Williamson, Karr is silent with respect to, at least, receiving a selection of parameter data/parameters, as recited in claims 16 and 28, respectively. As such, Applicant respectfully submits that Karr does not compensate for the deficiencies of Williamson, relative to claims 16 and 28.

Accordingly, based in part on the current amendments to independent claims 16 and 28, Applicant respectfully submits that claims 16 and 28 is patentable over Williamson.

The remaining claims rejected claims depend from either independent claim 16 or 28, and therefore are also patentable over the proposed combination of references by virtue of, at least, their respective dependencies. Applicant also respectfully requests individual consideration for each dependent claim.

Claim 15 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Williamson in view of Hougardy. Applicant respectfully traverses the rejection.

Claim 15 depends from claim 1 and therefore includes the limitation, "a user input that receives a selection of at least one of the subset of data." As provided with respect to independent claim 1, Williamson fails to teach or suggest the aforementioned feature. Applicant further submits that Hougardy provides no assistance in light of Williamson with respect to claim 15 since Hougardy fails to rectify the deficiencies of Williamson. Hougardy

merely describes a specific framework for improving the performance ratio of Steiner tree approximation algorithms (Hougady, Abstract). Moreover, like Williamson, Hougardy is silent with respect to, at least, "a user input that receives a selection of at least one of the subset of data," as recited in claim 1 and included in claim 15. As such, Applicant respectfully submits that Hougardy does not compensate for the deficiencies of Williamson, relative to claim 15.

Based on the foregoing, Applicant respectfully traverses the rejection with respect to claim 15 and respectfully requests that the rejection be reconsidered and withdrawn.

Claim 20 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Williamson in view of Hougardy. Applicant respectfully traverses the rejection.

Claim 20 depends from claim 16 and therefore includes the feature, "receiving a selection of at least one of the desired parameter data." As provided with respect to independent claim 16, Williamson fails to teach or suggest the aforementioned feature. Applicant further submits that Hougardy provides no assistance in light of Williamson with respect to claim 20 since Hougardy fails to rectify the deficiencies of Williamson. Hougardy merely describes a specific framework for improving the performance ratio of Steiner tree approximation algorithms (Hougady, Abstract). Moreover, like Williamson, Hougardy is silent with respect to, at least, "receiving a selection of at least one of the desired parameter data," as recited in claim 16 and included in claim 20. As such, Applicant respectfully submits that Hougardy does not compensate for the deficiencies of Williamson, relative to claim 20.

Based on the foregoing, Applicant respectfully traverses the rejection with respect to claim 20 and respectfully requests that the rejection be reconsidered and withdrawn.

Conclusion

For at least the foregoing reasons, it is respectfully submitted that claims 1-29 are in condition for allowance and a Notice to that effect is earnestly solicited. However, if there are any remaining matters that may be handled by a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

Respectfully Submitted,

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Dated: October 19, 2009 By: /Don H. Min 55,933/

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